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**REMARKS**

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested. By way of the present response, claims 1, 8 and 15 are amended, and claims 25-27 are added. Support for the amended subject matter is found in the original specification and figures, for example, at paragraphs 0013 and 0022, and in Figure 1. For reasons provided below, it is respectfully submitted that the present amendments should be entered and considered.

**The Finality of the Office Action is Premature**

The office action dated December 2, 2004, rejected dependent claims 2 and 9 as allegedly being anticipated by the Marshall et al. patent (U.S. Patent No. 6,353,841). In Applicant's response dated June 2, 2005, independent claims 1 and 8 were amended to include, respectively, features from dependent claims 2 and 9. Because claims 2 and 9 remain dependent from claims 1 and 8, respectively, the subject matter recited in these claims remains the same. However, in the most recent office action, the Examiner acknowledges that the Marshall patent does not teach all the features recited in claims 1 and 8, and thus also the subject matter recited in claims 2 and 9. Hence, the present Section 103 rejection of claims 2 and 9 based on the combination of the Marshall et al. patent and the Kasai et al. patent (U.S. Patent No. 6,781,681) was not necessitated by any amendment to these claims. As such, the finality of the office action is believed premature and should be vacated.

Because the finality of office action is premature, Applicant has not been given the opportunity to respond to the new rejection based on the Kasai et al. patent. Hence, it is respectfully submitted that the present amendments should be entered.

**The Proposed Combination Fails to Teach or Suggest All Recited Features**

The Office has rejected claims 1-24 under 35 U.S.C. 103(a) as being unpatentable over Marshall et al. (U.S. Patent No. 6,353,841) in view of Kasai et al. (U.S. Patent No. 6,781,682). In setting forth this rejection of claims 1 and 8, the Office refers to the Marshall et al. patent depiction in Figure 9 of a buffer or register including a multiplexer, and to the description in lines 32-36 and lines 45-55 of column 15 of an ALU having the ability to receive input signals containing dynamic instructions from connections to a wiring

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network. According to Marshall et al., a dynamic gate in the ALU can be set to either pass signals including dynamic instructions, or cause the ALU to use instructions stored in a 4-bit control register of the ALU, based on the value of a single configuration bit of the ALU. As Applicant pointed out on page 7 of the June 2, 2005 Amendment, and as the Office correctly acknowledges on page 3 of the final office action, the Marshall et al. patent fails to disclose “obtaining from at least one part of an apparatus ...” and “determining instructions for optimizing at least one operation of the at least one part of the apparatus based on the obtained information ....” The Office asserts that it would have been obvious to modify the reconfigurable processor devices of Marshall et al. to include specific details as provided by Kasai to adjust an apparatus using information obtained from the apparatus because feedback adjustments can reduce the cost of manufacturing, reduce need for skilled technicians (col. 1, lines 46-48), and by using a “genetic algorithm” to adjust parameters, an optimal solution may be found (col. 4, lines 25-41). However, even if one were to consider, for the sake of argument, that one of ordinary skill in the art would have been led to modify the device of Marshall et al. using the teachings of Kasai et al, the resulting combination would not have taught or suggested each and every feature of amended claims 1 and 8, namely, “obtaining, from an information component of at least one part of an apparatus, information about the at least one part of the apparatus, said information component comprising memory and a processor,” “determining instructions for optimizing at least one operation of the at least one part of the apparatus based on the obtained information,” and “applying the instructions to the information component for execution by the processor.”

The Kasai patent is directed to an optical apparatus including an optical unit. The optical unit comprises a plurality of adjustable optical elements, which are adjusted by way of an adjustment apparatus (e.g., see the abstract and column 7, lines 32-38 and 47-64.) According to the Kasai patent, the adjustment apparatus may comprise a computer in which a “genetic algorithm” is stored and executed (column 9, lines 51-63). The genetic algorithm in Kasai attempts to determine parameters for the optical elements of the optical apparatus based on observation of output light. However, there is no teaching or suggestion in Kasai that the adjustable optical elements include an information component having a memory and processor. Rather, optical elements of the Kasai apparatus are adjusted by a drive mechanism (i.e., item 4), which adjusts the element, for example, its position or lens shape, according to a control signal indicated in registers (i.e., item 5RG) of the adjustment apparatus (see, Figure

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3 and column 9, lines 21-50). Additionally, there is no teaching or suggestion in Marshall et al. to provide an information component comprising memory and a processor in a part of an apparatus, such as an optical element of an optical apparatus of Kasai et al. While a combination of the configurable processor array of Marshall et al. with the Kasai et al. optical apparatus would perhaps possibly suggested a computer having a configurable processor for executing code such as the genetic algorithm of Kasai et al., such a hypothetical combination would not have taught or suggested obtaining information about the optical elements from an information component comprising memory and a processor of the optical elements. Hence, the proposed combination of Marshall et al. and Kasai would not taught or suggested the claimed feature of “obtaining, from an information component of at least one part of an apparatus, information about the at least one part of the apparatus, said information component comprising memory and a processor,” as recited in the context of claims 1 and 8.

Similar distinguishing subject matter is recited in independent claim 15, which is a directed to an apparatus including one or more parts. In at least one of the parts, an information component for the part comprises memory and a processor, and the memory stores data about the part. Claim 15 recites that the apparatus includes “an optimization processing system that determines instructions for optimizing at least one operation of the at least one part of the apparatus based on data obtained from the at least one part and applies the instructions to the information component for execution by the processor to optimize the performance of the apparatus.” By contrast, the Kasai et al. patent is silent with respect to any optical element including an information component having memory and processor as claimed. As pointed out above, Kasai utilizes registers in the computer as a control signal, and an adjustment apparatus that operates according to whatever value is present in these registers. These values, in turn, are determined from monitoring light output from the apparatus and a genetic algorithm stored and executed in the adjustment apparatus (see, column 9, lines 51-63). Hence, even considering modifying the Marshall et al. apparatus with the details of Kasai et al. as suggested by the Office, such a modification would not have resulted in the claimed apparatus including *inter alia* “one or more parts,” and “an information component for at least one of the parts, the information component comprising memory and a processor ...,” as recited in amended claim 15.

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Furthermore, while the Marshall et al. patent mentions optimizing performance, it is in the context of optimization of the entire array of processors to carry out a particular instruction code compared with a conventional general-purpose processor (see, column 1 lines 7-22 and line 66 to column 2, line 7). Moreover, while the Kasai et al patent is concerned with optimizing the performance of an optical apparatus by determining a set of adjustment parameters for the optical elements, Kasai et al. does not address subject matter of the present invention. More particularly, Kasai fails to teach or suggest at least one part of an apparatus being provided with an information component including memory and a processor, that information or data about the part is obtained from the information component, and that instructions are determined for optimizing at least one operation of the at least one part of the apparatus based on the obtained information or data. The methods and apparatus of present invention, by contrast, include such an information component with a part of an apparatus. As a result, the present invention facilitates use of "smart" parts in an apparatus, for example, use of parts having relaxed and/or changing tolerances, wherein such characteristics are stored in memory of information components of the parts. Such smart parts also include a processor, which provides a mechanism for executing instructions that were determined based on the information obtained from the information component. Neither the Marshall et al. apparatus nor the Kasai et al. apparatus suggest any such mechanisms for storing information and executing instructions in a part of an apparatus. As such, they do not teach or suggest the presently claimed invention.

The dependent claims are allowable at least for the reasons given above for respective independent claims 1, 8 and 15. Additionally, the dependent claims recite subject matter including additional features defining further points of distinction not taught or suggested in the Marshall et al. and Kasai patents.

For example, claims 6 and 13 recite that "the obtained information for the at least one of the part comprises at least one algorithm of the at least one part." With respect to these claimed features, the Office refers to column 10, lines 38-41 of the Marshall et al. patent. It is respectfully submitted, however, that the description of a multiplexer selecting one of four inputs to determine the instructions of an ALU of the associated switchbox does not relate to obtaining information from a part of an apparatus including at least one algorithm, much less "determining instructions for optimizing ... based on the obtained

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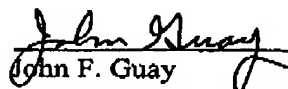
information.” Indeed, as the Office correctly acknowledges, the Marshall et al. patent fails to even disclose “obtaining from at least one part of the apparatus ...” (page 3, line 10). Hence, it is respectfully submitted that the Marshall et al. patent does not teach or suggest obtaining at least one algorithm of the at least one part as claimed. Similar features are recited in claim 20 in connection with data in the information component for at least one of the parts comprising at least one algorithm of the part. Thus, claim 20 also recites additional features not taught or suggested in the applied Marshall et al. document.

While the remaining rejected dependent claims and new claims 25-27 recite additional distinctions defining separately patentable subject matter, because the distinctions pointed out above with respect to independent claims 1, 8 and 15 are clear, Applicant will not belabor a detailed discussion of each and every dependent claim. It is respectfully submitted, however, that further distinctions exist.

In view of all of the foregoing, Applicant submits that this application is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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